## **O**verview of the Degree Program

## **✓** Degree

Master of Science (M.Sc.)

### ✓ Regular Program Length

4 semester (full-time program)

### ✓ Credit Points (ECTS)

120 credit points

### **✓** Language of Instruction

English and German

### **✓** Admission Requirements

- » a completed bachelor's or equivalent degree in Digital Economics, Industrial Engineering and Management, Information Systems or related discipline
- » necessary minimum requirements completed in the bachelor's program in Mathematics / Statistics of 20 CP
- » proof of sufficient knowledge of English of at least CEFR B2 level (TOEFL, IELTS, TOEIC, Cambridge Certificate) and German (DSH2 or equivalent)

Details can be found in the current admission regulations.

## ✓ Limited Capacity

yes / 20 places

## ✓ Application Deadline

July 15 / January 15 for the 1st semester

## **Questions?**

If you have **general questions** about the degree program, studying at KIT or the **application process**:

Carmen Reck, your student advisor at ZSB:

### carmen.reck@kit.edu

If you have **specific questions** concerning the curriculum of the degree program:

Your academic advisor at the KIT-Department of Economics and Management: **pruefungssekretariat@wiwi.kit.edu** 



Information in this flyer was accurate at the time of printing. Program structure, study plan or deadlines could have changed since then.

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## Karlsruhe Institute of Technology

The Karlsruhe Institute of Technology (KIT), a fusion of a university and a large-scale research facility, represents one of the leading research and teaching institutions in Europe in natural science and engineering. Students who choose to study here opt for a scientific education that is predominately research-oriented. The wide range of offered subjects provides a high level of freedom of choice and individual specialization options in the master's degree programs. The particularly high qualification standards at KIT are known among employers and thus offer graduates a well-paved road into starting a professional career or continuing with a doctorate.

## **D**igital Economics (M.Sc.)

In the interdisciplinary master's degree program, you deepen and broaden the basic scientific qualifications you already acquired in the bachelor's program and you further develop your individual competence profile. The languages of instruction are English and German.

During the first two semesters, you will focus on the mandatory components of the subjects Economics, Methods and Society. Thus, you will complete the modules Digital Economics, Digital Financial Economics, Economics & Management (3 x 9 CP), Informatics & Machine Learning, Statistics & Econometrics and Computation & Optimizations (3 x 9 CP), as well as, in semester 2 and 3, Digitalization and Society (1 x 9 CP), where you work on the ethical and sociological aspects of the digital transformation process.

In your 3rd semester, you are required to complete two elective modules (2 x 9 CP) and one seminar module (9 CP), which you can choose from a wide range of courses comprising the elective subjects Economics, Business Administration, Informatics, Operations Research, Statistics, Law and Sociology. These electives allow you to set your focus according to your personal interest and help you develop interdisciplinary key skills such as scientific writing and presenting, team work, creativity techniques, project management skills etc.

Semester 4 is reserved for the master's thesis.

We recommend, you start your studies in the winter semester. International applicants should apply as early as possible.

## **C**areer Prospects

Within your master's degree in Digital Economics, you have acquired in-depth and extended knowledge of advancing digitalization and the associated transformation processes in the economy and society. You are capable of independently applying scientific knowledge and methods and evaluate their implications and scope concerning solutions of complex scientific and social problems.

Thus you are particularly qualified to work in strategic fields of activity in all areas of public administration, in non-governmental organizations, in all areas of the private sector characterized by digitalization, in scientific research institutes as well as for a downstream scientific career (doctorate). And if you are the entrepreneurial kind of person, you may also consider setting up your own start-up.

## **Characteristic Features of the Degree Program at KIT**

- » newly designed interdisciplinary program
- » first university program of its kind in Germany
- » modern and innovative study program at the interface of economics and informatics
- » possibility to individualize your course through extensive elective and specialization options
- » close cooperation with the Department of Humanities and Social Sciences
- » Industrial Partner Network for company contacts and internships
- » KIT is member of the university network EUCOR which enables you to participate in courses at the universities Freiburg, Basel, Strasbourg, Colmar and Mulhouse
- » departmental International Relations Office for assistance in planning your stay abroad
- » for prospective doctoral students: Karlsruhe House of Young Scientists (KHYS)
- » for young start-ups: entrepreneurial support by KIT-Gründerschmiede / KIT Founders Forge

# **Program Structure**

#### 1st semester

- Economics (18 CP): • Digital Economics (4.5 CP)
  - Digital Financial Economics (9 CP)

  - Economics and Management (4.5 CP)

#### • Methods (13.5 CP):

- Information and Machine Learning (4.5 CP)
- Statistics and Econometrics (4.5 CP)
- Computation and Optimization (4.5 CP)

#### 2nd semester

- Economics (9 CP):
  - Digital Financial Economics (4.5 CP)
  - Economics and Management (4.5 CP)

#### Methods (13.5 CP):

- Information and Machine Learning (4.5 CP)
- Statistics and Econometrics (4.5 CP)
- Computation and Optimization (4.5 CP)

#### Society (4.5 CP)

Digitalization and Society (4.5 CP)

#### 3rd semester

• Digitalization and Society (4.5 CP)

### 4th semester

. Master thesis (30 CP)

- Electives (27 CP):

Society (4.5 CP)

- Elective Module 1 (9 CP)
- Elective Module 2 (9 CP)
- Seminar Module (9 CP)